

CLAIMS

1. Aluminium alloy ingot suitable for rolling to sheet for use as lithographic plate support, wherein the aluminium alloy has the composition (in wt%)

Si 0.05 – 0.20 preferably 0.06 – 0.14
Fe 0.15 – 0.40 preferably at least 0.2
Others up to 0.05 each and up to 0.15 total
Al balance

wherein the aluminium alloy ingot is non-grain-refined.

2. The aluminium alloy ingot of claim 1, wherein the Fe/Si weight ratio is from 2.5 to 5.5.

3. The aluminium alloy ingot of claim 1 or 2, wherein the Fe content is in the range 0.25 to 0.4.

4. The aluminium alloy ingot of any preceding claim, which has a hydrogen content of not more than 0.25 ml/100 g.

5. The aluminium ingot of any preceding claim, comprising feathery and/or columnar grains.

6. The aluminium ingot of any preceding claim, comprising grains of a length of 500µm or greater.

7. A method of making the aluminium alloy ingot of any preceding claim, which method comprises providing a molten body of the aluminium alloy, optionally degassing molten body, and casting the molten body.

8. The method of claim 7, wherein the molten body is DC cast at a casting speed of at least 60 mm/min.

9. The aluminium alloy sheet for use as lithographic plate support, wherein the aluminium alloy has the composition (in wt %):

Si 0.05 – 0.20 preferably 0.06 – 0.14
Fe 0.15 – 0.40 preferably at least 0.2
Others up to 0.05 each and up to 0.15 total
Al balance

wherein the aluminium alloy sheet is non-grain-refined.

10. The aluminium alloy sheet of claim 9, wherein the Fe/Si weight ratio is from 2.5 to 5.5.
11. An aluminium alloy sheet of claim 9 or 10, wherein the Fe content is in the range of 0.25 to 0.4.
12. The aluminium alloy sheet of any one of claims 9 to 11, wherein the iron in solution is 0.0018 to 0.0051 wt %.
13. A method of making the aluminium alloy sheet of any one of claims 9 to 12, which method comprises providing a molten body of the aluminium alloy, optionally degassing the molten body, casting the molten body into an ingot, and rolling the ingot to sheet.
14. The method of claim 13, wherein the molten body is DC cast at a casting speed of at least 60 mm/min.
15. A lithographic plate support comprising the aluminium alloy sheet of any one of claims 9 to 12, whose surface has been subjected to electrograining.
16. The lithographic plate support of claim 15, wherein the electrolyte used for electrograining was nitric acid.

17. A lithographic plate comprising the support of claim 15 or claim 16 and a photochromic layer on a surface thereof.

18. A DC cast material for use as lithographic plate support, comprising an aluminium alloy having the composition (in wt%)

Si 0.05 – 0.20 preferably 0.06 – 0.14

Fe 0.15 – 0.40 preferably at least 0.2

Others up to 0.05 each and up to 0.15 total

Al balance

wherein the aluminium alloy ingot is non-grain-refined.